



## INSTALLATION INSTRUCTIONS

1075 North Ave. Sanger, CA 93657-3539 toll free: 800-445-3767 web: [www.belltechcorp.com](http://www.belltechcorp.com)

### 6905 REAR LOWERING KIT 90-96 CHEVY ¾ TON EXTENDED CAB

**Congratulations! You were selective enough to choose a BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation.**

- Note:** Confirm that all of the hardware listed in the parts list is in the kit. **Do not** begin installation if any part is missing. Read the instructions thoroughly before beginning this installation.
- Warning:** **DO NOT** work under a vehicle supported by only a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.
- Warning:** **DO NOT** drive vehicle until all work has been completed and checked. Torque all hardware to values specified.
- Reminder:** Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!
- Note:** It is very helpful to have an assistant available during installation.

#### RECOMMENDED TOOLS:

- Properly rated floor jack, support stands, and wheel chocks
- Combination wrench set
- Torque wrench: *0-75 lb ft. range*
- Ratcheting socket wrench and socket sets
- Air Chisel / Die grinder W/ cut off wheel
- Safety Glasses

#### KIT INSTALLATION

1. Open the hardware kit and remove all of the contents. Refer to the part list (Page 4) to verify that all parts are present.
2. Park the vehicle on a smooth level asphalt or concrete surface. Place a block in front of and behind the front wheels. Jack up the rear of the vehicle and place jack stands securely under the frame in the manufacturer's specified locations. Remove the rear wheels.
3. For access to the rear suspension and to simplify the installation procedure remove the bed from the truck. There are eight large bolts that hold the bed to the frame, which must be removed. Unbolt the gas filler neck, unplug tail light harness and disconnect the two ground straps in the front and the back of the truck. Be sure to check these entirely prior to the removal.
4. Block the front wheels and raise the rear of the truck using a hydraulic floor jack under the center axle. Place the frame on jack stands just ahead of the front spring hangers and remove the wheels from the truck. (PHOTO 1)

5. Remove the lower shock mounting hardware so the shocks are free from the rear end. Lower the floor jack so that all the pressure is off of the leaf spring assemblies. **CAUTION: Leaf springs are under tension; use caution when disconnecting.** (PHOTO 2)
6. Remove the bolts and nuts from the spring hangers and lower the jack so the fronts of the springs free themselves from the hangers. **CAUTION:** Do not let the rear axle drop to the point where the brake lines and/or drive shaft are strained. You may want to use a jack stand to support the rear end housing at this point. (PHOTOS 3 & 4)
7. Unbolt the stock emergency brake bracket from the spring hanger. The other cable feeds through a hole in the hanger. A section of the material must be cut away in order to free the cable from the hanger. **CAUTION: Always wear eye protection when using power tools.** (PHOTO 5 & 6)
8. The rivets must be removed from the stock hangers. This can be done several ways. Shown here is the use of an air chisel. Cutting a slot in the head of the rivet aids in the removal of the rivet head. Grinding the heads off the rivets is an alternative method. **CAUTION: Always wear eye protection when using power tools.** (PHOTO 7 & 8)
9. Remove the stock hangers from the frame. Make sure all the rivets are out of the frame. (PHOTO 9)
10. There is a bed bracket welded to the chassis that must be notched for clearance, where the new spring hanger will make contact. On the passenger side there is a bolt extending out of the chassis. This also will have to be ground off. **CAUTION: Always wear eye protection when using power tools.**
11. **NOTE:** There is an additional hole in each hanger in this kit. This hole should be on the front side of the spring eye bolt (toward the front of the vehicle).
12. Install the new hangers on the frame using the hardware supplied and tighten securely. (PHOTO 11)
13. Once the hanger is secured, drill and install the fifth (extra) bolt and nut into the hanger. **IMPORTANT: This is a mandatory step in the installation procedure.** (PHOTO 12)
14. Position the rear axle so there is no pressure on the leaf springs at the rear shackles. Remove the shackle bolts and stock shackles from the spring. **CAUTION: Leaf springs are under tension use caution when disconnecting.** (PHOTO 13)
15. The one-ton springs are equipped with an upper overload. This must be removed before completion of the installation. Support the axle with jack stands. Remove the U-bolts from the axle. Lift the spring in a stable position in which it can be worked on. Be sure to mark the front of the springs to be sure you replace them correctly. (PHOTO 14)
16. The spring center bolt must be removed in order to remove the upper overload spring. **NOTE:** You may want to clamp the spring pack together (all except the upper overload) to maintain leaf alignment. (PHOTO 15)
17. Once the spring center bolt is removed, the upper overload and steel spacer can be discarded. Push the new center bolt down through the spring pack from top to bottom (the threads and the long nut will be on the bottom of the spring).
18. Thread the long nut on the center bolt and tighten completely. Cut off the remaining excess length of the bolt.

19. We have supplied short bump stops in this kit to replace the stock units. Remove the rivets holding them to the frame. Shown here is the method of using an air chisel. Cutting a slot in the head helps aid in removal. Grinding the head off the rivet is another method. (PHOTO 16 & 17)
20. Replace them with the short urethane stops.
21. Place the front of the leaf spring into place in the front hanger. Put the new emergency brake adaptor bracket into position and slide the spring eyebolt through the bracket into the spring and hanger. Attach the washer and nut, but do not tighten yet. (PHOTO 18)
22. Lift the rear of the spring up and place the new shackle on the spring. Make sure you put the spring eyebolt in from the inside out so the threads are toward the outside. (PHOTO 19)
23. Lower the shackle into position into the stock hanger on the frame and slide the bolts through the spring into place. Attach the washers and nuts, but do not tighten yet. (PHOTO 20)
24. Remove the overhead pads from their position on the side of the chassis front and rear, by removing the four bolts from each pad. (PHOTO 21)
25. Jack up the rear end so that the long nuts start to enter their position on the spring perches on the axle. Slide the 4° shims into place between the axle and the spring. The thick portion of the shim should be toward the front of the truck. Make sure that the shoulder of the shim is completely against the long nut. (PHOTO 22)
26. Place the stock U-bolts, axle plates and mounting hardware back into its stock location and tighten completely. Torque the U-bolts to 110 Ft. lbs.
27. Once the U-bolts are tight, raise the rear end with the jack until the frame begins to lift off the jack stands. Now tighten all six-spring eyebolts completely. (PHOTO 23)
28. Release pressure from the floor jack so the truck is again securely on the jack stands.
29. The stock emergency brake bracket can now be attached to the new adaptor bracket. Use the stock bolt and nut to mate the two pieces. There is a hole in the new bracket where the tab on the stock bracket fits. Make sure these are aligned and tightened completely. (PHOTO 24 & 25)
30. Install the kit supplied transmission tail shift spacers by removing the stock transmission mounting bolts and raising the rear of the transmission with a jack or suitable lifting device. (PHOTO 26) To ease the installation of the kit supplied transmission bolts; remove the bottom transmission mount nut and the transmission mount. Install the kit supplied transmission mount bolts through the transmission mount flanges and locate the kit-supplied spacers over the bolts with the kit supplied washers on the ends of the spacer tubes against the transmission housing and transmission mount. (PHOTOS 27 & 28) Re-install the transmission mount with the bolts and spacers intact and start all the hardware related to this mount before applying final torque. Torque the bottom transmission mount nut to 35-40 Ft-lbs, and the kit supplied spacer bolts to 47-52 Ft-lbs. (PHOTO 29)
31. On an extended cab vehicle, it will be necessary to remove a portion of the under-cab cross member to allow drive shaft clearance after installation of the center carrier bearing spacer. To ease this process, remove the bolts that retain the center carrier bearing to the vehicle cross member. Slide the propeller shaft assembly as far to one side as possible. Locate the kit supplied template on the center of the cross member as directed by the instructions on the template. (PHOTO 30) After marking the front and rear of the cross member as directed (PHOTO 31), remove the section indicated with a

Sawzall, plasma cutter or suitable tool. (PHOTO 32) **CAUTION: Always wear eye protection when using power tools.**

32. Lift the drive shaft assembly and install the kit supplied center carrier bearing spacer between the center carrier bearing and the vehicle cross member with the "feet" of the spacer down toward the vehicle cross member. (PHOTO 33) Install and torque the kit supplied hardware to 15-Ft-lbs.
33. Install the kit supplied lower shock extension making sure that they slip into the cutout on the stock shock mounts. Torque the 9/16" bolt and nut to 180-185 Ft-lbs. Drill the small hole in the side or the back of the shock mount so that the kit supplied 5/16" bolt engages both the stock mount and kit supplied shock extension. Torque this 5/16" hardware to 15-20 Ft-lbs. (PHOTO 34, 35 & 36)
34. Upgraded shocks can be installed at this time. Otherwise install the stock shock using the original mounting hardware. (PHOTO 37)
35. Replace the truck bed. Be sure all eight bolts, ground straps and filler neck hardware is replace.
36. Install the wheels and tires, raise the truck, remove the stands and lower the truck to the ground. The installation is completed. **IMPORTANT:** Re-torque U-bolts after 100 and 500 miles.

## PART LIST FOR 6905

### REAR LOWERING KIT

| PART No. | DESCRIPTION                      | QTY. |
|----------|----------------------------------|------|
| 6900-030 | Front Hanger, LH                 | 1    |
| 6900-040 | Front Hanger, RH                 | 1    |
| 6400-100 | Shackle                          | 2    |
| 6950-003 | Parking Brake Cable Bracket      | 1    |
| 6550-050 | Shock Ext.                       | 2    |
| 110408   | ½"-20 x 1-1/4" NF Grade 8 C/S ZP | 10   |
| 110402   | ½"-20 NF Grade 8 L/N ZP          | 10   |
| 110660   | ½" A325 F/W ZP                   | 20   |
| 110252   | Spring Center Bolt 3/8"-24 x 5"  | 2    |
| 110257   | Coupling Nut 3/8"-24 x 1-1/8"    | 2    |
| 4977-001 | 4° Pinion Shim                   | 2    |
| 110456   | 9/16"-12 x 3-1/2" Grade 5 C/S ZP | 2    |
| 110454   | 9/16"-12 Nylon L/N ZP            | 2    |
| 110670   | 9/16" A325 F/W ZP                | 4    |
| 7000-880 | Sleeve (gold) .75" x 1.625"      | 2    |
| 4918-001 | Urethane Bump Stop               | 2    |
| 110201   | 5/16"-18 x 1" Grade 5 CS         | 2    |
| 110203   | 5/16"-18 Nylon LN ZP             | 2    |
| 110204   | 5/16" A325 FW ZP                 | 4    |
| 110305   | 7/16"x 20 Nylon LN ZP            | 2    |
| 110312   | 7/16" x 20 x 3" NC Grade 8 CS ZP | 2    |
| 110645   | 7/16" A325 FW                    | 4    |
| 6925-010 | Carrier Bearing Spacer           | 1    |
| 6500-010 | Transmission Spacer 1"           | 1    |
| 403785   | 10-1.5 mm x 55 mm F/W ZP         | 2    |
| 110625   | 3/8" A325 F/W ZP                 | 2    |









